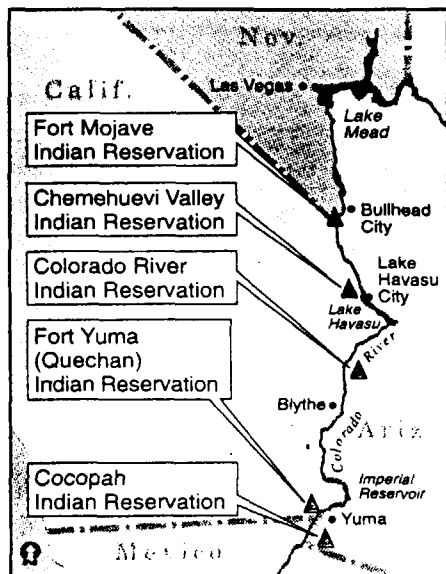


### Perchlorate fears



## Chemical's effect on crops worries tribes

□ A public forum focuses on the consequences of the presence of a rocket fuel ingredient in drinking water.

By Keith Rogers  
Review-Journal

American Indian tribes that produce a significant portion of the nation's lettuce crop said Tuesday they are concerned about health effects from the rocket fuel ingredient perchlorate flowing in Colorado River water downstream of Las Vegas Valley industrial sites.

"Irrigation is a way of life for our people. We have 13,000 acres dedicated to the production of lettuce. We produce annually eight heads of lettuce

for every man, woman and child (in the United States)," said Earl Hawes, environmental manager of the Yuma, Ariz., Quechan tribe.

His comments came Tuesday during the opening day of a three-day public forum at the Henderson Convention Center, sponsored by the Inter-agency Perchlorate Steering Committee.

The committee is a group of experts from the Environmental Protection Agency, the Air Force and health and environment agencies primarily from Nevada and California — two of at least 35 states that either have detected perchlorate contamination in water supplies or have potential sources for contamination.

"That food," said Hawes, "is produced from Colorado River water and 23 million people derive their water

supply from the lower Colorado River in three states and two countries. That's how big this problem is.

"If we screw up this river. We mess up their future forever," he said.

"How is it going to affect our lettuce crop? We don't know. We need to understand how extensive the contamination is and how critical it is. We should have known this a long time ago," Hawes told the committee.

Hawes and members of four other tribes — the Chemehuevi, Cocopah, Colorado River and Fort Mojave — echoed the concerns of Henderson biologist Larry Paulson.

"One area that's been neglected is trying to contain this problem. If you talk to the average person on the

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## From 1A

street, they'll tell you they don't want perchlorate in their water," Paulson said.

Chemehuevi Council Member Matthew Leivas said while his tribe's utmost concern is for human health, "the tribe is also very much concerned about (perchlorate's) effects on the ecosystem and fish and wildlife."

Committee members said they are searching for answers on potential health effects as they continue to pinpoint the main sources of contamination with help from the companies that produced it.

Brenda Pohlmann, who is spearheading the state's investigation into the problem, said a system is being developed to intercept the contamination plume in ground water layers before it seeps into Las Vegas Wash and eventually flows into Lake Mead. The system is expected to be on line late this summer. Scientists plan to extract the contaminated water and hold it in an evaporation pond, where it can be treated and released downstream of the sources. She said some of the contaminated water already is being intercepted in an effort to extract another contaminant, chromium.

Meanwhile, researchers are expecting by September the results of eight studies on health-risk estimates that will be compared to human exposure rates and could be used, collectively, as the basis for drinking water and cleanup guidelines.

Annie Jarabek, of the EPA's National Center for Environmental Assessment in North Carolina, said the researchers are looking at how perchlorate consumption affects rats and how people have been affected by using potassium perchlorate for medical reasons.

The primary health concern related to perchlorate is that it may interfere with the thyroid gland's ability to use iodine to produce hormones that control metabolism, growth and development.

California health officials have set a temporary standard of 18 parts per billion, which triggers remedial action for the chemical in drinking water supplies.

But Robert Hall, chairman of the Nevada Environmental Coalition and a critic of steering committee's efforts, said he is concerned that there is no scientific basis for California's temporary standard and that the EPA's "crude toxicology observations" don't consider the chemical's potential effects on a person's immune system.

"They are going through a process which will result in a set of safety limit numbers that have no basis in science," he said after Tuesday's forum.

The companies that produced the chemical are Kerr-McGee Chemical Corp., which sits in an industrial complex on an island of Clark County land surrounded by Henderson, and American Pacific Corp., parent company of the Pacific Engineering & Production Co. of Nevada, known as the PEPCON site, now a part of Henderson. The PEPCON plant was leveled by a series of explosions involving the compound, ammonium perchlorate, 10 years ago this month.

From the time it opened in December 1958, the PEPCON plant produced ammonium perchlorate first for the Pentagon's Titan rockets and then for space shuttles. In its peak years, the plant turned out 6,000 tons of the oxidizer for shuttle launches.

Similarly, in 1953, the Kerr-McGee plant began producing 2,000 tons of ammonium perchlorate annually with production peaking in the mid-1980s at 15,000 tons per year.

Since last year, perchlorate levels have been as high as 3.7 million parts per billion in ground water at the Kerr-McGee plant and 630,000 parts per billion at the PEPCON site.

Perchlorate has been detected at 11 parts per billion in treated drinking water from Lake Mead and 8 parts per billion at Hoover Dam.